

REMARKS

Applicant respectfully requests reconsideration and allowance in view of the foregoing amendments and the following remarks. Applicant notes that claim 3 has been canceled and claims 1-2 and 5-7 have been amended. Thus, claims 1-2 and 4-7 are pending in the application.

Applicant has attached hereto a version of the amendments to claims 1-2 and 5-7 showing the changes made. The attached version is labeled "VERSION OF CLAIM AMENDMENTS SHOWING CHANGES MADE."

In the Office Action, claims 1-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Jarvinen (U.S. Patent No. 5,526,366).

With regard to independent claim 1, Applicant notes that this claim has been amended to more particularly recite storage means for storing information associated with a predetermined set of speech elements that are suitable for reconstituting words of a vocal language, vocal recognition means configured to use the information associated with the predetermined set of speech elements to recognize corresponding speech elements in the received data frames, and synthesis means configured to use the information associated with the predetermined set of speech elements to synthesize parts of the recognized speech elements corresponding to the corrupted parts. Applicant respectfully submits that the channel decoder described in Jarvinen fails to teach or suggest these aspects of the claimed invention.

In contrast, Jarvinen generally describes a channel decoder that decodes encoded speech frames using an error correction decoder to determine the original unencoded speech parameters. Because the speech parameters result from the decoding process and correspond to the original unencoded speech parameters (with channel noise), Applicant respectfully submits that the channel decoder described in Jarvinen does not teach or suggest storage means for storing information associated with a predetermined set of speech elements that are suitable for reconstituting words of a vocal language as recited in claim 1. In fact, the speech parameters described in Jarvinen have a very different meaning than the speech elements recited in claim 1. Applicant further respectfully submits that Jarvinen does not perform any vocal recognition on the received data frames, and therefore, fails to teach or suggest vocal recognition means configured

to use the information associated with the predetermined set of speech elements to recognize corresponding speech elements in the received data frames. Furthermore, if the decoder described in Jarvinen detects errors in a received frame, the decoder either extrapolates the erroneous decoded speech parameters from previous frames or mutes or attenuates the erroneous decoded speech parameters. Applicant respectfully submits that this process fails to teach or suggest synthesis means configured to use information associated with the predetermined set of speech elements (that is also used by a vocal recognition means) to synthesize parts of the recognized speech elements corresponding to the corrupted parts as recited in claim 1. Therefore, for at least the foregoing reasons, Applicant respectfully requests that the Section 103(a) rejection with respect to claim 1 and all claims dependent thereon be withdrawn.


With regard to independent claims 5-7, Applicant notes that these claims have been amended to recite subject matter similar to claim 1. Therefore, Applicant respectfully requests that the Section 103(a) rejections with respect to claims 5-7 be withdrawn for reasons similar to those discussed above.

In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-2 and 4-7 are in condition for allowance. Applicant, accordingly, respectfully requests that a notice of allowance be issued with respect to claims 1-2 and 4-7.

Please charge any fees which may be required, except the issue fee, or credit any overpayment to Deposit Account No. 14-1270.

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Respectfully submitted,

By 
Kevin Simons, Reg. No. 45,110
(408) 474-9075
Philips Electronics North America Corp.
1000 West Maude Avenue
Sunnyvale, CA 94085-2810

VERSION OF CLAIM AMENDMENTS SHOWING CHANGES MADE

Please amend claim 1-3 and 5-7 as follows:

1. (Amended) A receiver for receiving data frames transmitted through a communication channel and comprising an error detection device for correcting transmission errors in the received data, [characterized in that] wherein said error correction device comprises:

- storage means for storing information associated with a predetermined set of speech elements that are suitable for reconstituting words of a vocal language,
- vocal recognition means configured to use the information associated with the predetermined set of speech elements [for recognizing] to recognize corresponding speech elements in the received data frames,
- detection means for detecting corrupted parts in the recognized speech elements,
- synthesis means configured to use the information associated with the predetermined set of speech elements [for synthesizing] to synthesize parts of the recognized speech elements corresponding to the corrupted parts, and
- replacement means for replacing said corrupted parts by synthesized parts in the received data frames.

2. (Amended) A receiver as claimed in claim 1, [characterized in that] wherein said speech elements are phonemes or diphones.

3. (Amended) A receiver as claimed in claim 1, [characterized in that] wherein the error correction device comprises storage means for storing the information associated with the predetermined set of speech elements [intended to be used by the vocal recognition means and the synthesis means].

5. (Amended) An error correction device for correcting transmission errors in received digital data frames, [characterized in that it comprises] comprising:

- storage means for storing information associated with a predetermined set of speech elements that are suitable for reconstituting words of a vocal language,

- vocal recognition means configured to use the information associated with the predetermined set of speech elements [for recognizing] to recognize corresponding speech elements in the received data frames,
- detecting means for detecting corrupted parts in the recognized speech elements,
- synthesis means configured to use the information associated with the predetermined set of speech elements [for synthesizing] to synthesize parts of the recognized speech elements corresponding to the corrupted parts, and
- replacement means for replacing said corrupted parts by the synthesized parts in the received data frames.

6. (Amended) A communication system for transmitting data frames between a transmitter and a receiver via a communication channel, the receiver comprising an error detection device for correcting transmission errors in the received data, [characterized in that] wherein said error correction device comprises:

- storage means for storing information associated with a predetermined set of speech elements that are suitable for reconstituting words of a vocal language.
- vocal recognition means configured to use the information associated with the predetermined set of speech elements [for recognizing] to recognize corresponding speech elements in the received data frames,
- detecting means for detecting corrupted parts in the recognized speech elements,
- synthesis means configured to use the information associated with the predetermined set of speech elements [for synthesizing] to synthesize parts of the recognized speech elements corresponding to the corrupted parts, and
- replacement means for replacing said corrupted parts by the synthesized parts in the received data frames.

7. (Amended) An error detection method for correcting transmission errors in received digital data frames, [characterized in that it comprises] comprising the following steps:

- a storage step for storing information associated with a predetermined set of speech elements that are suitable for reconstituting words of a vocal language

- a vocal recognition step for using the information associated with the predetermined set of speech elements to permanently recognize[ing] corresponding speech elements in the received data frames,
- a detection step for detecting corrupted parts in the received speech elements,
- a synthesis step for using the information associated with the predetermined set of speech elements to synthesize[ing] parts of the recognized speech elements corresponding to the corrupted parts, and
- a replacement step for replacing said corrupted parts by the synthesized parts in the data frame.